

AMENDMENT

In the claims:

Claims 1 to 20. (Previously canceled)

allowable
21. (Previously Amended) An oligonucleotide probe consisting of about 15 to 50 contiguous nucleotides of a polynucleotide having a sequence as set forth in SEQ ID NO:23, or a sequence complementary thereto.

22. (Presently canceled) An oligonucleotide probe fully complementary to an oligonucleotide probe of claims 21, 26, or 27.

23. (Presently canceled) The oligonucleotide probe of claim 22, wherein the probe is 20-50 nucleotides in length.

24. (Presently canceled) The oligonucleotide probe of claim 22, wherein the probe is labeled with a detectable label.

25. (Presently canceled) The oligonucleotide probe of claim 24, wherein the detectable label is an isotopic label or a non-isotopic label, which non-isotopic label is selected from the group consisting of: a fluorescent molecule, a chemiluminescent molecule, an enzyme, a cofactor, an enzyme substrate, and a hapten.

26. (Currently Amended) An oligonucleotide probe comprising a nucleic acid sequence consisting of a sequence which specifically hybridizes under stringent conditions to a nucleic acid comprising SEQ ID NO:23 or a sequence fully complementary thereto to form a detectable target probe duplex, wherein hybridization conditions comprise 45°C in 0.9 M NaCl, 50 mM NaH₂PO₄, pH 7.0, 5.0 mM Na₂EDTA, 0.5% SDS, 10X Denhardt's, and 0.5 mg/mL polyriboadenyllic acid.

27. (Currently Amended) An oligonucleotide probe comprising a nucleic acid sequence eonsisting of a sequence which specifically hybridizes to a nucleic acid having at least 95% identity to SEQ ID NO:23 and encoding a polypeptide having esterase activity or a sequence fully complementary thereto to form a detectable target probe duplex, wherein hybridization condition comprise 45°C in 0.9 M NaCl, 50 mM NaH₂PO₄, pH 7.0, 5.0 mM Na₂EDTA, 0.5% SDS, 10X Denhardt's, and 0.5 mg/mL polyriboadenylic.

28. (Previously Added) The oligonucleotide probe of claims 26 or 27, wherein the sequence is at least 15 bases.

29. (Previously Added) The oligonucleotide probe of claims 26 or 27, wherein the sequence is at least 30 bases.

30. (Previously Added) The oligonucleotide probe of claims 26 or 27, wherein the sequence is at least 50 bases.

31. (Previously Added) The oligonucleotide probe of claims 21, 26, or 27, wherein the probe is 20-50 nucleotides in length.

32. (Currently amended) The oligonucleotide probe of claims 21, 26, or 27, wherein the probe is labeled with further comprises a detectable label.

33. (Currently amended) The oligonucleotide probe of claim 32, wherein the detectable label comprises is an isotopic label or a non-isotopic label, which non-isotopic label is selected from the group consisting of: a fluorescent molecule, a chemiluminescent molecule, an enzyme, a cofactor, an enzyme substrate, and a hapten.

Please add the following new claims:

34. (NEW) An oligonucleotide probe consisting of a sequence which hybridizes to a nucleic acid comprising SEQ ID NO:23 or a sequence fully complementary thereto, to form a detectable target probe duplex, wherein hybridization condition comprise 45°C in 0.9 M NaCl, 50 mM NaH₂PO₄, pH 7.0, 5.0 mM Na₂EDTA, 0.5% SDS, 10X Denhardt's, and 0.5 mg/mL polyriboadenylic acid.

35. (NEW) An oligonucleotide probe consisting of a sequence which hybridizes to a nucleic acid having at least 95% identity to SEQ ID NO:23 and encoding a polypeptide having esterase activity or a sequence fully complementary thereto to form a detectable target probe duplex, wherein hybridization conditions comprise 45°C in 0.9 M NaCl, 50 mM NaH₂PO₄, pH 7.0, 5.0 mM Na₂EDTA, 0.5% SDS, 10X Denhardt's, and 0.5 mg/mL polyriboadenylic acid.

36. (NEW) The oligonucleotide probe of claims 34 or 35, wherein the sequence is at least 15 bases.

37. (NEW) The oligonucleotide probe of claim 36, wherein the sequence is at least 30 bases.

38. (NEW) The oligonucleotide probe of claims 37, wherein the sequence is at least 50 bases.

39. (NEW) The oligonucleotide probe of claims 34 or 35, wherein the oligonucleotide probe is 20 to 50 nucleotides in length.

40. (NEW) The oligonucleotide probe of claims 34 or 35, wherein the oligonucleotide probe further comprises a detectable label. ← *improperly dependent*

41. (NEW) The oligonucleotide probe of claim 40, wherein the detectable label comprises an isotopic label or a non-isotopic label.

42. (NEW) The oligonucleotide probe of claim 41, wherein the non-isotopic label comprises a fluorescent molecule, a chemiluminescent molecule, an enzyme, a cofactor, an enzyme substrate or a hapten.

43. (NEW) The oligonucleotide probe of claim 26, claim 27, claim 34 or claim 35, wherein the hybridization conditions further comprise washing at room temperature in 1X SET containing 0.5% SDS.

44. (NEW) An oligonucleotide probe consisting of at least 15 contiguous nucleotides of a polynucleotide having a sequence as set forth in SEQ ID NO:23, or a sequence complementary thereto.

45. (NEW) An oligonucleotide probe consisting of at least 30 contiguous nucleotides of a polynucleotide having a sequence as set forth in SEQ ID NO:23, or a sequence complementary thereto.

46. (NEW) An oligonucleotide probe consisting of at least 50 contiguous nucleotides of a polynucleotide having a sequence as set forth in SEQ ID NO:23, or a sequence complementary thereto.

47. (NEW) The oligonucleotide probe of claim 44, wherein the oligonucleotide probe further comprises a detectable label. *← improperly dependent*

48. (NEW) An oligonucleotide probe comprising a nucleic acid sequence which specifically binds to a nucleic acid having 90% sequence identity to SEQ ID NO:23 or a sequence fully complementary thereto to form a detectable target probe duplex, wherein the nucleic acid having 90% identity to SEQ ID NO:23 has an esterase activity.

49. (NEW) The oligonucleotide probe of claim 48, wherein the nucleic acid has 95% sequence identity to SEQ ID NO:23.

50. (NEW) The oligonucleotide probe of claim 48, wherein the oligonucleotide probe further comprises a detectable label.

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estm 51. (NEW) A method for amplifying a nucleic acid comprising using an oligonucleotide probe as set forth in claim 26, claim 27 or claim 44 as an amplification primer.

52. (NEW) An amplification primer comprising an oligonucleotide as set forth in claim 26, claim 27 or claim 44.

53. (NEW) A diagnostic probe comprising an oligonucleotide as set forth in claim 26, claim 27 or claim 44.
